

# EXPRESSION OF INTEREST (EOI)

## FOR

### Fire Fighting System (FFS)

KWtE-03-PR-EO-ACC-0 Rev01 11

<b>Version:</b>	<b>Date:</b>	<b>Prepared by:</b>	<b>Approved:</b>
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## 1 Project overview

ACCIONA's Engineering, Procuring & Construction (EPC) contract will deliver the first of its kind in Australia, a \$700 million project in the Kwinana Industrial Area which will process up to 400,000 tonnes a year of household waste. Using best practice technologies and processes, the facility will export an estimated 36MW of electricity back to the grid – enough to power around 50,000 homes.



## 2 Summary of package

Supply, testing, delivery and installation of the Fire Fighting System.

## 3 Standards applicable to the Project

- AS 1110.1 (set) 2015 ISO metric hexagon bolts and screws – Product grades A and B – Part 1: Bolts
- AS 1111 (set) 2015 ISO metric hexagon bolts and screws
- AS 1112 (set) 2015 ISO metric hexagon nuts
- AS 1163 2016 Cold-formed structural steel hollow sections
- AS 1171 1998 Methods for magnetic particle testing of ferromagnetic products and components
- AS/NZS 1214 2016 Hot-dip galvanized coatings on threaded fasteners
- AS 1237.1 (set) 2002 Plain washers for metric bolts, screws and nuts for general purposes – General plan
- AS 1349 1986 Bourdon tube pressure and vacuum gauges
- AS 1275 1985 Metric screw threads for fasteners
- AS/NZS 1365 1996 Tolerances for flat-rolled steel products
- AS 1394 2001 Round steel wire for ropes
- AS 1397 2011 Continuous hot-dip metallic coated steel sheet and strip – Coatings of zinc and zinc alloyed with aluminium and magnesium
- AS 1432 2004 Copper tubes for plumbing, gas fitting and drainage applications
- AS 1450 2007 Steel tubes for mechanical purposes
- AS/NZS 1477 2017 PVC pipes and fittings for pressure applications
- AS 1559 2018 Hot-dip galvanised steel bolts and associated nuts and washers for tower construction
- AS/NZS 1567 1997 Copper and copper alloys – Wrought rods, bars and sections
- AS 1569 1998 Copper and copper alloys – seamless tubes for heat exchangers
- AS/NZS 1571 1995 Copper – seamless tubes for air-conditioning and refrigeration

AS/NZS 1594 2002 Hot-rolled steel flat products  
AS 1627.1 (set) 2003 Metal finishing – preparation and pre-treatment of surfaces  
AS 1628 1999 Water supply – metallic gate, globe and non-return valves  
AS 1683.1 (set) 2002 Methods of test for elastomers  
AS 1710 2007 Non-destructive testing of carbon and low alloy steel plate – test methods and quality classifications  
AS 1722.2 1992 Pipe threads of Whitworth form – Fastening pipe threads  
AS 1830 2007 Iron castings - grey cast iron  
AS 1831 2007 Double cast iron  
AS 1929 2009 Non-destructive testing – glossary of terms  
AS 2062 1997 Non-destructive testing – penetrant testing of products and components  
AS 2083 2005 Calibration blocks and their method of use in ultrasonic testing  
AS 2084 1987 Non-destructive testing – eddy current testing of metal tubes  
AS 2177 2006 Non-destructive testing – radiography of welded butt joints in metal  
AS 2207 2007 Non-destructive testing – ultrasonic testing of fusion webbed joints in carbon and low alloy steel  
AS/NZS 2280 2014 Ductile iron pipes and fittings  
AS 2452.3 2005 Non-destructive testing  
AS 2528 1982 Bolts, stud bolts and nuts for flanges and other high and low temperature applications  
AS 2544 1995 Grey iron pressure fittings  
AS 2554 1998 Hose and hose assemblies for air  
AS/NZS 2574 2000 Non-destructive testing – ultrasonic testing of steel castings and classification of quality  
AS/NZS 2728 2013 Pre-finished/pre-painted sheet metal products for interior/exterior building applications – performance requirements  
AS 2824 2003 Non-destructive testing – ultrasonic methods – evaluation and quality classification of metal bearing bonds  
AS 3566.1 2002 Self-drilling screws for the building and construction industries  
AS 3791 1991 Hydraulic hose  
AS/NZS 4130 2009 Polyethylene (PE) pipes for pressure application  
AS 4131 2010 Polyethylene (PE) compounds for pressure pipes and fittings  
AS 4291.1 (set) 2015 Mechanical properties of fasteners made of carbon steel and alloy steel  
AS 4343 2014 Pressure equipment – hazard levels  
AS/NZS 4534 2006 Zinc and zinc/aluminium-alloy coatings on steel wire  
AS/NZS 4680 2006 Hot-dip galvanised (zinc) coatings on fabricated ferrous articles  
AS/NZS 4791 2006 Hot-dip galvanized (zinc) coatings on ferrous open section  
AS/NZS 4792 2006 Hot-dip galvanized (zinc) coatings on ferrous hollow sections, applied by a continuous or a specialised process  
AS ISO 9712 2014 Non-destructive testing – qualification and certification of NDT personnel –  
AS ISO 1000 1998 The International System of Units (SI) and its application  
AS 1319 1994 Safety signs for the occupational environment  
AS 1100.101 1992 Technical drawing  
AS 1101.1 (set) 2007 Graphical symbols for general engineering  
AS 1269 (set) 2005 Occupational noise management  
AS/NZS 1336 2014 Eye and face protection – guidelines  
AS 1580 (set) 2002 Paints and related materials  
AS 1657 2013 Fixed platforms, walkways, stairways and ladders – Design, construction and installation

AS 1715 2009 Selection, use and maintenance of respiratory protective equipment  
 AS 1716 2012 Respiratory protective devices  
 AS/NZS 2243.2 (set) 2006 Safety in laboratories – Chemical aspects  
 AS 2436 2010 Guide to noise and vibration control on construction, demolition and maintenance sites  
 AS 2700 2011 Colour standards for general purposes  
 AS 2812 2005 Welding, brazing and cutting of metals – glossary of terms  
 AS 3545 2004 Welding positions  
 AS/NZS 4501.1 2008 Occupational protective clothing – Guidelines on the selection, use, care and maintenance of protective clothing  
 AS/NZS ISO 9000 2016 Quality management systems – Fundamentals and vocabulary  
 AS/NZS ISO 9001 2016 Quality management systems – Requirements  
 AS/NZS ISO 31000 2009 Risk management – Principles and guidelines  
 HB 90.3 2000 The Construction Industry – Guide to ISO 9001:2000  
 AS/NZS 1158 2005 Lighting for roads and public spaces  
 AS 1284.4 2006 Electricity meters – Alternating current watt-hour meters classes 0.5 and 2.0  
 AS 1359.0 1998 Rotating electrical machines – General requirements – Introduction and list of parts  
 AS/NZS 1768 2007 Lightning protection  
 AS/NZS 2053.1 (set) 2001 Conduits and fittings for electrical installations – General requirements  
 AS 2067 2016 Substations and high voltage installations exceeding 1 kV a.c.  
 AS 2374.8 2000 Power transformers – Application guide  
 AS 2380.1 1989 Electrical equipment for explosive atmospheres – Explosion-protection techniques –  
 AS 2380.4 1994 Electrical equipment for explosive atmospheres – Explosion-protection techniques –  
 Pressurized rooms or pressurized enclosures  
 AS/NZS 3000 2007 Electrical installations (known as the Australian/New Zealand wiring rules)  
 AS/NZS 3008.1.1 2017 Electrical installations – Selection of cables Part 1: Cables for alternating  
 voltages up to and including 0.6/1 kV – Typical Australian installation conditions  
 AS/NZS 3010 2017 Electrical installations – Generating sets  
 AS/NZS 3011.1 1992 Electrical installations – Secondary batteries installed in buildings – Vented cells  
 AS/NZS 3011.2 1992 Electrical installations – Secondary batteries installed in buildings – Sealed cells  
 AS/NZS 3012 2010 Electrical installations – Construction and demolition sites  
 AS/NZS 3013 2005 Electrical installations – Classification of the fire and mechanical performance of  
 wiring system elements  
 AS/NZS 3017 2007 Electrical installations – Verification guidelines  
 AS/NZS 3019 2007 Electrical Installations – Periodic verification  
 AS/NZS 3084 2017 Telecommunications installations – Telecommunications pathways and spaces for  
 commercial buildings  
 AS/NZS 3085.1 2004 Telecommunications installations – Administration of communications cabling  
 systems – Basic requirements  
 AS/NZS 3760 2010 In-service safety inspection and testing of electrical equipment  
 AS/NZS 3800 2012 Electrical equipment for explosive atmospheres – Repair and overhaul  
 AS/NZS 4509.1 2009 Stand-alone power systems – Safety and installation  
 AS/NZS 4509.2 2010 Stand-alone power systems – System design  
 AS/NZS 4761 .1 2008 Competencies for working with electrical equipment for hazardous areas  
 (EEHA) – Competency Standards  
 AS/NZS 4761 .2 2008 Competencies for working with electrical equipment for hazardous areas  
 (EEHA) – Guide to assessing competency  
 AS/NZS 4836 2011 Safe working on or near low-voltage electrical installations and equipment

AS/NZS 4853 2012 Electrical hazards on metallic pipelines  
AS/NZS 5000.1

(set) 2005 Electric cables – Polymeric insulated – For working voltages up to and including 0.6/1 (1.2) kV

AS 60044.1 (set) 2007 Instrument transformers – Current transformers (IEC 600441 Ed.1.2 (2003) MOD)

AS/NZS 60076.1 (set) 2014 Power transformers

AS/NZS 60079 (set) 2017 Explosive atmospheres

AS 60529 2004 Degrees of protection provided by enclosures (IP code)

AS 60849 2004 Sound systems for emergency purposes

AS/NZS 1221 1997 Fire hose reels

AS 1603.1 (set) 1997 Automatic fire detection and alarm systems

AS 1670.1 (set) 2015 Fire detection, warning, control and intercom systems – System design, installation and commissioning – Part 1: Fire

AS 1682.1 (set) 2015 Fire, smoke and air dampers

AS/NZS 1841.1 2007 Portable fire extinguishers – General requirements

AS 1851 2012 Routine service of fire protection systems and equipment

AS 2118.1 (set) 2017 Automatic fire sprinkler systems, Part 1: General systems

AS 2304 2011 Water storage tanks for fire protection systems

AS 2362 (set) 2002 Fire detection, warning, control and intercom systems

AS 2419.1 2017 Fire hydrant installations, Part 1: System design, installation and commissioning

AS 2441 2005 Installation of fire hose reels

AS 2444 2001 Portable fire extinguishers and fire blankets – Selection and location

AS 2941 2013 Fixed fire protection installations – Pump set systems

AS 4072.1 (set) 2005 Components for the protection of openings in fire-resistant separating elements – Service penetrations and control joints

AS 4428.1 (set) 1998 Fire detection, warning, control and intercom systems – Control and indicating equipment

AS 7240 (set) 2007 Fire detection and alarm systems